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ABSTRACT

Individuals in liberal societies have to construct their own conceptions of who they are and what career(s) they should prepare for as opposed to being told by families, schools, or communities. The trends toward providing more and more career information is a valuable component of an overall policy to prepare individuals to make decisions for themselves. But it is an incomplete policy and especially may leave behind precisely those individuals who most need to become more sophisticated decision-makers. Instead, a constructivist conception of career guidance and career information is necessary, one that facilitates individuals constructing their own identities, their careers, and the role they want education and work to play relative to their other possible interests in life. Some constructivist practices include the National School Counselor Training Initiative; the "exploratories" of high schools following the model of education through occupations, work-based learning, or service learning; the creation of learning communities in community colleges or parent groups; the family advocacy system; embedding counseling in the curriculum and distributing the counseling function among a number of professionals, including teachers. So there is no lack of constructivist ideas and practices but they have not become common. (The paper includes a description of the Puente Program, created to help Latino students complete high schools and become eligible for California public colleges and universities. There are 47 references.) (MO)

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WHO AM I:

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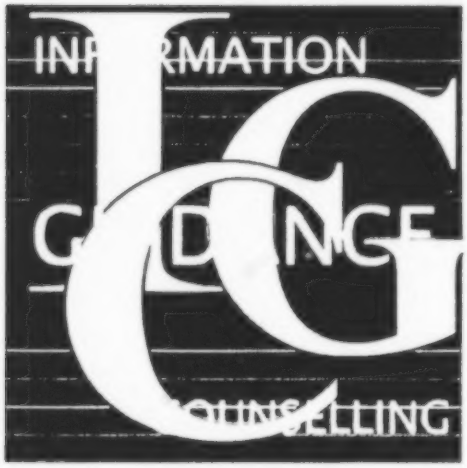

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All my people are larger bodies than mine, quiet, with voices gentle and meaningless like the voices of sleeping birds. One is my mother who is good to me. One is my father who is good to me. . .
After a little I am taken in and put to bed. Sleep, soft smiling, draws me unto her; and those receive me, who quietly treat me as one familiar and well-beloved in that home: but will not, oh, will not, not now, not ever; but will not ever tell me who I am.

James Agee, *A Death in the Family*.

The process of growing up, at least in a liberal society, involves a series of choices — about spouses, friends, values, "lifestyles" or ways of living, schooling, work, and much more. Some of these decisions we take for granted, embedded as they are in family life, in customs, in informal and barely-recognized influences. Others are institutionalized and thereby formalized, especially decisions about schooling, work, and career. When preparation for work took place informally, or in apprenticeship-like settings, then family influences were crucial, and in many cases there might be no decision to make since sons succeeded their fathers and daughters became mothers and homemakers. But as preparation for work has moved into educational institutions, and as the range of occupational choice has expanded for virtually everyone in developed countries, then educational decisions have become occupational decisions. Ideally each is consistent with the other, though when young people make (prior) educational decisions that preclude their (subsequent) occupational aspirations, this inconsistency can cause problems — what Schneider and Stevenson (1999) call "misaligned ambitions". As part of this long process, educators and others have realized the need to prepare young people to make these choices, and the distinct field of career information and guidance has developed.

Recently, in a variety of countries, there has been increasing recognition of the importance of career-related information and guidance (CI&CG), with new policies being developed to increase the amount and quality of both information and guidance. Lying behind many of these developments is a perspective that I call the Education Gospel (Grubb and Lazerson, in progress), which goes something like this: The Knowledge Revolution (or the Information Society, or the Communications Revolution, or the high-tech revolution) is changing the nature of work, shifting away from occupations rooted in industrial production to occupations associated with knowledge and information. This shift has both increased the skills required for new occupations and updated the three R's, shifting the skills required toward "higher-order" or core skills or key skills including communications skills, problem-solving, and reasoning — the "skills of the 21st century". Obtaining these skills normally requires formal schooling and training past the secondary school level so that some college — though not necessarily a baccalaureate degree — will be necessary for the jobs of the future, a position that we and others label College for All.[1] Because of the pace of technological change, individuals are more likely to find their skills becoming obsolete. They must keep up with advances in technology, and even change their employment as firms adopt new technologies and products, and therefore lifelong learning is necessary to keep up with these changes. International competition has increased; and because no developed country wants to fall into the ranks of undeveloped countries relying on raw materials and unskilled labor, the need for greater levels of education and training over the lifespan is even more compelling. Countries may have to work harder just to maintain their standards of living, and individuals need more schooling just to maintain their own earnings. But the good news is that an expanded and properly reformed education system can meet all these challenges. The Education Gospel therefore includes both a conception of economic and social change, and a vision of how to respond to that change through education and training alone.

The Education Gospel in turn implies that CI&CG are increasingly important for a number of reasons:

- The selection of an appropriate occupation is valuable not only for individual purposes, as a way of increasing satisfaction at work, earnings, and stability of employment, but also for the social goals of efficiency, productivity, and competitiveness.

- Many countries have increased and improved the occupationally-oriented elements of their education systems, sometimes at the secondary level and sometimes in post-compulsory programs including those in technical colleges or community colleges or further education colleges. Improved CI&CG is therefore necessary for individuals to make rational choices among these expanded alternatives.

- Some countries — notably Great Britain under Thatcher, the U.S., and Australia — have developed market-like mechanisms in elementary and secondary schools, increasing the demands for parents and student-consumers to be well-informed in order to choose wisely in education markets. The increased importance of post-compulsory education, as part of the educational expansion embedded in the Education Gospel, makes informed consumer choice increasingly important, since in most countries post-compulsory schooling operates through market-like mechanisms where students choose among colleges and universities, and postsecondary institutions compete for students.

- The rapid changes in occupations themselves makes lifelong learning — and therefore the information necessary for educational upgrading and retraining — increasingly necessary, extending the need for CI&CG to the entire lifespan; and many countries have created new policies in the interests of lifelong learning. While it is often difficult to know what "lifelong learning" means, one conception is that individuals must be prepared to learn on their own as jobs and career change — requiring the capacity to understand occupational changes and to react accordingly.[2]

- The concern in many countries with inequity and the social exclusion of some groups — low-income youth, minority youth, recent immigrants, aboriginal groups, sometimes rural youth — has led to various efforts to resolve such problems by enhancing the schooling of these groups. Since students lacking basic information about the educational requirements of occupations cannot possibly find their way into the most appropriate schooling, this tactic has in turn led to a concern with equity of access to CI&CG.

While there are several different reasons for the interest in CI&CG, what has been less widely discussed is what should be provided — that is, what mix of *information* versus *guidance* versus career-related *activities* is appropriate for helping young people discover who they are, and for helping older individuals changing directions rediscover what they might be. Indeed, one of the dominant directions that countries have taken is the creation of new sources of information accessible through the Web, often labeled a "self-service" approach to CI&CG.[3] Of course, there are enormous economies of scale in using the Web to disseminate career-related information, and many individuals need little more than this kind of information. But my point is that countries and programs that emphasize CI&CG through the Web have implicitly decided that information, rather than career-related guidance and other activities, is most appropriate. This approach *assumes* that individuals are sophisticated in using information, so that information is sufficient to making appropriate decisions. Similarly, the conventional recommendation from economists when quasi-markets in education and training are created is that potential consumers need adequate information — again an approach that assumes consumers are sophisticated enough to use information in their own interest.

Finally, while it often is not clear what career *guidance* entails (as I will explore in Section III.1), the dominant approach to vocational guidance places heavy emphasis on information as well.

Nearly a century ago in the U.S., when secondary schools were becoming explicitly vocational and educators were starting to realize the need for more formal preparation to make occupational decisions, Frank Parsons outlined a conception of decision-making that persists to this day (Parsons, 1909, p. 5):

> In the wise choice of a vocation there are three broad factors: (1) a clear understanding of yourself, your aptitudes, abilities, interests, ambitions, resources, limitations, and their causes; (2) a knowledge of the requirements and conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work; (3) true reasoning on the relations of these two groups of facts.

The trait and factor approach descended from this approach stresses self-knowledge as well as information about vocational options and their prerequisites. Counselors help students uncover their own preferences, personality traits, and strengths — often with the help of interest inventories, personality assessments, and the like — and then provide them with information about the occupations most suited to their interests and abilities, a process sometimes belittled as "test 'em and tell 'em". In practice, therefore, the tactic of providing information is one of the dominant approaches to counseling.[4] Ever since Parsons, there has been a greater emphasis on the "two groups of facts" than on the "true reasoning" that might link them.

The centrality of information in the career guidance process, and the interest in many countries in providing more and more information, may seem a logical response to the proliferation of educational and occupational alternatives that potential workers confront. But if individuals are unsophisticated in their use of information, or lack the ability to use information in their decision-making, then simply providing additional information — an "information dump" — will be inadequate to improving their decision-making, about careers or any other goal. If this is a serious problem for many individuals — particularly young people in secondary school, starting to make the decisions that will affect their futures — then they will end up with mis-aligned ambitions inconsistent with their educational plans. Furthermore, if a lack of sophistication is more prevalent among certain groups — low-income groups or students whose parents have relatively low levels of education and cannot provide them much information about professional work, for example, or immigrants unfamiliar with a new country's labor market, or children in rural areas, or aboriginal groups on reservations — then the provision of information alone will contribute to the problems of inadequate schooling and social exclusion. As an OECD review of Canada's career guidance policies expressed this issue, "public investment in information is of little value if its potential users are unable to access the information they require, to understand it and relate it to their personal needs, and to act upon it" (Canada Country Note, ¶44).

In this essay, therefore, I explore some of the reasons that information alone may be necessary to career decision-making, but not by itself sufficient. In Section I, I examine first the dominant approach to rational decision-making within economics — the expected utility model — which proves to require much more of consumers than simply information.[5] In Section II I review some other complications of career-related decisions, drawn from disciplines other than economics. Again, these help to clarify the ways that information alone may be insufficient. In Section III I turn to the issue of what kinds of practices might counteract the problems described in the earlier sections. To do this it is necessary to have detailed information about practices, and so I rely heavily on information about guidance in the U.S.; while this is necessarily limited, it does provide an example of how any country's practices could be examined. I first examine career-related guidance, since guidance might help individuals interpret and use information more successfully, examining counseling practices in the U.S. Then, because guidance in the U.S. is so limited, I examine new and emerging forms of career guidance and career-related *activities* that might overcome the various barriers to rational decision-making, and might thereby help individuals become more sophisticated in their use of information.

The paradox of the Information Age is that we are awash in information, with more becoming available every day through the Web, through systematic efforts to construct "self-service" approaches to career information, and through one-stop information centers. But more information is not necessarily better than less information if people have no idea how to use it, and so something different may be necessary to prepare the new workers and citizens of the Information Society.

I. THE REQUIREMENTS OF RATIONAL DECISION-MAKING: PERSPECTIVES FROM ECONOMICS

While economists contemplating markets and quasi-markets (like markets in education and training) often claim that more information is necessary to create informed consumers, in fact their models of decision-making are considerably more complex. The dominant model is the expected utility model, in which individuals choose one alternative from among many — the one that that maximizes their expected utility or their probable well-being. In slightly more formal terms, an individual chooses that alternative X_1 among n alternatives such that

$$E(U(X_1)) > E(U(X_i)), i = 2, n$$

But this relatively simple formulation in turn implies the following five requirements:

1. The existence of preference

An individual must have preferences that can be expressed in terms of utility functions — an assumption that itself requires a number of restrictions on preferences to guarantee certain kinds of consistency[6] — that are relatively stable; if preferences or utility functions vary from week to week, say, then what seems rational will also vary. But the existence of stable preferences is itself a problem, particularly for young people who are just beginning to think about options and who may not know what they prefer, or whose preferences may vary as they experiment with different options — particularly during adolescence, which is often interpreted as a period of experimentation. Indeed, if the formation of preferences is itself a developmental process — for example, with initial preferences revised or rejected or reaffirmed through subsequent experience and evaluation — then preferences during this process cannot be useful as the basis of rational decisions, if "rational" is defined by those stable preferences that emerge from this experimentation. But expected utility theory simply assumes that preferences exist, and does not ask how they come to be.

While interest inventories can identify preferences or interests, and even say something about their stability (Savickas, Stilling and Schwartz, 1984 or Savickas and Spokane, 1999), the real question underlying this particular assumption is how individuals develop stable preferences. This is not a question which economists have explored at all, though social learning theorists have stressed that experiences over time produce the preferences that in turn affect decisions (e.g., Krumboltz, Mitchell, and Gelatt, 1976; Mitchell and Krumboltz, 1990). This in turn implies that policies that try to expand the range of an individual's experiences over time — rather than simply providing information at isolated points in time — may be necessary, a tactic to which I will return in Section III.2 below.

While expected utility theory arose in economics, its essential structure has been replicated in some theories within psychology and career development. A number of career development

theories posit the idea of self-concept or identity, and then argue that individuals seek a congruence between self-concept and a job, or attempt to minimize the difference between self-concept and the conditions of a job.[7] But such an approach simply substitutes a notion of self-concept for that of preferences or utility, and minimizes the discrepancy between self-concept and reality rather than maximizing utility or subjective well-being; the question of where self-concept comes from is no different than the question of where stable preferences come from. In this sense, then, many conceptions of rational decision-making in psychology are logically equivalent to expected utility theory.

2. A large array of alternatives

Expected utility theory assumes that individuals consider a large range of alternatives X_1 to X_n, large enough so that there is not an alternative that potentially generates greater expected utility than the chosen alternative — or, in career decision-making, that there is not a job or career that would yield potentially higher levels of well-being than the alternative chosen. This is, of course, where the role of information enters: presumably various sources of information can provide information about a full range of occupations, their educational and other personal requirements, and their consequences for employment, earnings, the conditions or work, and other valued characteristics.

But the evaluation of many alternatives inevitably requires counter-factual thinking and a kind of empathy, or being able to think of oneself in an occupation (and a related educational trajectory) that is likely to be unfamiliar. This in turn requires thinking about the consequences of alternatives that have not been experienced in any way, or may be "unthinkable" or somehow repugnant. The problems of working-class individuals imagining themselves in professional positions involves problems of this kind; Reay and Ball (1997) have argued that there are likely to be substantial class differences in perceptions of choice, particularly as working-class youth contemplate alternatives in educational institutions that have treated them badly. Young women imagining themselves in stereotypically male occupations, or (in the U.S.) black students imagining themselves in "white" occupations (Ogbu, 1978) present similar problems. If individuals have dismissed a certain range of occupations or of educational pathways from consideration, then their decisions cannot be rational in the economist's sense — and in laymen's terms, the alternatives they consider seriously will be too narrow.

3. Probabilistic thinking

Expected utility models assume that what counts is the *expected* utility of an alternative, or the probability of its occurrence times the utility associated with the outcome. Thus the utility of being a rock star may be infinitely greater than the utility of being an accountant, but given the very small probability of being a rock star the *expected* utility of becoming an accountant may be much higher. This in turn requires both that individuals know the probabilities of the different alternatives they assess, and that they be able to make the expected utility calculations: that is, rational decision-making requires probabilistic thinking. But we know from many different sources that individuals have a great deal of difficulty with probabilistic thinking, particularly when probabilities are very low and payoffs or consequences are very high (e.g., Shoemaker, 1986).

The problem of probabilistic thinking may be perceived simply as a problem of inadequate education, and that individuals need more information about the probabilities of different occupations. In the U.S., for example, where professional basketball is a lure for many youth (especially many black youth), representatives of the National Basketball Association carry around cards giving the probabilities of high school players playing in colleges and then in the NBA, to clarify the extraordinarily small likelihood that even a talented high school player could become a professional. More generally, the concern among counselors with the realism of career-related decisions involves

the ability to judge the probabilities of different alternatives. But the information necessary for probabilistic thinking, as well as the habits of thinking probabilistically, do not usually come as part of any "information dump", and so some other tactic is necessary to achieve this dimension of rationality.

4. Time dimensions and planfulness

While many decisions do not involve dimensions of time — for example, the decision of what shirt to buy or what to eat for lunch — career decisions inevitably require examining present and future events like present education and future occupations, or present costs and future benefits. In conventional economic analysis, this requires the ability to trade off between present and future consequences, by using a subjective rate of time preference in present value calculations[8] — a rate at which individuals are willing to trade current costs for future benefits, for example. Individuals with high rates of time preference are more present-oriented, and those with low rates of time preference are more likely to value future consequences, to be willing to trade current costs for future benefits, to postpone gratification — often taken as a mark of maturity as well as a stern Protestant self-control.

In theory, a rate of time preference is another dimension of preferences, assumed to be exogenous and individual — so an individual who disregards the future consequences of present actions could be considered rational but with a high rate of time preference. In practice, however, part of the process of maturation (and of schooling) involves understanding future consequences more clearly, of becoming increasingly planful — in effect, of lowering one's rate of time preference and then acting on the resulting calculations of the value of future consequences. Thus Super's (1990) conception includes time perspective as one of five important dimensions of career maturity; Savickas' (1990) conception includes time perspective (how individuals orient themselves to time), time differentiation (making the future seem more real), and time integration (a sense of connectedness among events over time), which in turn facilitates planning. Evidently, most developed societies place a high premium on future orientation and planfulness; certainly this is a crucial capacity in making decisions of any sort about a long trajectory of education and training prior to entering the workforce, or in individuals considering the steps they might take to change their careers or jobs. But this dimension of decision-making is nowhere apparent in any form of "information dump".

5. The problem of latent demand

In conventional consumer theory, consumers know that they need to make choices; the assumption of non-satiation is that individuals always want more of everything than they could possibly demand. But in the case of CI&CG, there is a great deal of *latent* or unexpressed demand, rather than *explicit* or overt demand. When individuals acknowledge that they made mistakes in their choices earlier in their lives, or wish that they had had better information about the effects of schooling, or wind up in the wrong occupations and then try to change career directions, they implicitly acknowledge that they should have earlier made decisions in better ways, but that they failed to get the information they needed or did not recognize that a decision was necessary. While it is possible that this is a supply problem, when individual who want CI&CG fail to get it, such situations often develop even as counselors and teachers are trying without success to get students to focus on plans for their futures. The literature on social exclusion is full of testimony from students who admit that they made the wrong decisions in their earlier years, partly because they did not know the consequences of their decisions, or did not heed the warnings of teachers and counselors to develop clearer plans, or to work more diligently, or to stay in school to protect future options. In some of these cases, the problem is not simply that they were uninformed abut career alternatives and schooling prerequisites; they were also unaware that they needed to know this information in order to make well-informed decisions, a kind of second level of ignorance. So providers of CI&CG may have to confront a real paradox: in order to create well-informed consumers who can make education and

occupational decisions in their own interests — they may need to be much more active in forcing individuals to confront the need to make informed decisions.

So, even relying on basic economic theory, information is not sufficient to make rational decisions. Stable preferences, the ability to consider a wide range of alternatives, the ability to thinking probabilistically, the capacity to considers trade-offs over time, and the recognition of the need to make decisions, are also necessary. When I turn in Section III to ways of enhancing these dimensions of decision-making, however, that task proves much more difficult than simply providing additional information.

II. OTHER COMPLICATIONS IN CAREER DECISION-MAKING

Of course, economics hardly has a monopoly on thinking about decision-making; other disciplines have weighed in as well, providing yet other perspectives about the value of information. In this section I review four such issues — the ways in which people construct and interpret information; various developmental perspectives in career guidance; issues of identity formation; and the effects of parents, community, and other early influences. What links all of them is that, in one way or another, they may impede what would otherwise be rational decision-making. They may be desirable in some forms, and undesirable in others — and therefore lead to programs to counteract them — but the fact that these influences affect career and educational decisions means once again that information alone is insufficient for career decision-making.

1. The construction of information

Information may be widely available in the Information Age, but individuals may not interpret it in the same way. Information which is not considered authoritative may not be considered, and the authority of information varies from group to group — a special problem in dealing with diverse groups with their own norms including teenagers, minority communities, ethnic communities including recent immigrants, sometimes rural communities, certainly aboriginal communities. So the information that comes from peers may be treated differently — often with more respect — than information from parents and teachers, a phenomenon that affects decisions ranging from sex to drugs to educational and career decisions, sometimes with disastrous consequences. In British research, parents are generally seen as the most helpful sources of information, followed by career advisers and teachers, but young people also rely on informal advice from friends (NICEC, 1996, citing Watts et al., 1996). In the U.S., where career education is less extensively implemented, peers are surely more influential than advisors and teachers.

Part of the problem of evaluating information is ascertaining how likely it is to be accurate. Government statistics may be considered accurate, for example, and indeed most countries have procedures to check the accuracy of such information.[9] But accuracy may not be the issue. If forecasts of job openings and earnings are necessary, for example, the problem is one of understanding the potential inaccuracy of forecasts; if data are available only for a country or a region, then they may be useless for those making local decisions — a special problem in large countries like Canada, the U.S. or Australia, or in countries with limited geographic mobility. The information available from governments is different from that available from education and training providers, whose "information" may be more like self-promotion; journalistic sources often report high-profile stories of a few individuals or a few outlandish cases, rather than reporting the average or the distribution of a

phenomenon. In the U.S., for example, the predictable annual stories about the high cost of university usually highlight the extreme tuition costs of elite private schools, and the tendency of some low-income and minority families to over-estimate the cost of college (e.g., Post, 1990) may be due to their inability to understand the biases in these journalistic accounts. These kinds of interpretive problems require that individuals be able to understand the sources of information, their potential biases and reliability. Although the ability to interpret information has usually been incorporated in key skills or core skills or the "skills for the 21st century", this capacity is surely not evenly distributed in the population needing to make sense of career information — and so again information itself may be necessary but not sufficient.

The construction of information is made even more complex because many forms of information available as part of the Information Age come in written form — reference books, government publications, research reports, and computer-based versions of these. As Walter Ong (1982), David Olson (1994) and others have emphasized, however, many individuals and groups do not fully accept such "literate" sources; in more "oral" traditions, the authority of the individual conveying the information is more important. The question of which communities are more "oral" or more "literate" is a politically charged one, to be sure, but some low-status communities — especially low-income communities, rural communities, communities of immigrants without access to the dominant language — seem to be more "oral", as do some high-status communities — for example, politicians and policy-makers with their reliance on stories, the business community with its faith in face-to-face communication. It is also possible that individuals and young people of all classes who have grown up soaked in television and movies are more "oral", less willing to turn to formal print sources of information. All these are contentious issues without much empirical resolution, but the point is that, to the extent that "oral" patterns exist — particularly among young people and low-income youth — the ability to weigh the information available from print sources, and therefore from many forms of "information dump", is limited. Under these conditions the conventional sources of information in career guidance, which are almost exclusively print-based sources, are likely to be less effective than experiential sources of information including visits to employers, discussions with others including alumni and employees, work experience and job shadowing — mechanisms that have been developed particularly in countries like Austria and Germany with strong employer associations.

A final issue involves the salience of information. Particularly in an "Information Age", individuals are surrounded by information in many forms. But they do not necessarily absorb it unless they have the constructs or schema necessary for cataloging and retaining the information. For example, students who do not view themselves as needing to make career decisions may not recognize the value of information about careers, even though some information is widely available. They may in fact be making career-related decisions — as they decide which subjects and programs to take in school, whether to work diligently or not, whether to complete secondary education or drop out; but without recognizing the link between schooling decisions and occupational decisions, they may not absorb the information available to them. This means that the information necessary for "rational" decisions is not exogenous or external to the decision — it is instead endogenous, collected as part of the decision-making process. Therefore information that is in some sense widely available may not be "created" or absorbed until individuals have reasons to do so, which in turn depends on their preferences and their stage in a decision-making process.

While there are several different facets of constructing information, the overall point is that information is received, interpreted, weighed and judged by individuals in different ways, sometimes appropriately and sometimes quite incorrectly. In order to be useful in decision-making — active rather than inert, we might say — information must be appropriately interpreted, and the capacity to do so does not come along with a simple "information dump". There may be ways of developing this capacity but they must themselves be carefully developed.

2. The effects of parents and other community influences

In the literature on career development, parents and other family members are among the most important influences, sometimes the most important.[10] Sometimes these influences are beneficial, for example when sophisticated parents can provide their children with perspectives on a wide variety of employment and on educational prerequisites, and when their own lives provide models. In other cases, the influences are surely negative in the sense of constraining the options to which a child can aspire. Constraints on aspirations occur in both high-status families — for example, when fathers pressure their sons to follow in their footsteps — and in low-status families, for example when parents pressure their children to remain in their culture of birth. In other cases parents lack the knowledge of the wider world that might benefit their children, and then it is possible for schools and career advisory services to act as a compensatory measure — a way of providing what parents and communities cannot. But if parental effects are more constraining than a simple lack of information, then more substantial activities than the provision of compensatory information may be necessary, as I illustrate in Section III.

3. Developmental perspectives on career development

The expected utility model of economics, and its variants in psychology, tend to view decisions as one-time events, with information marshaled to make a single best decision. But many conceptions of career *development* view career-related decisions as a developmental process, unfolding over time. This perspective implies that decisions at early stages may be improved upon, or corrected, or even reversed as individuals gather more information and experiences, or change their preferences or the way they see the future; implicitly this means that early decisions may not be rational in the expected utility sense because they build on incomplete information, an incomplete ability to judge information, unstable or ill-formed preferences, and the like. From this perspective, there may not be such a thing as a perfectly rational decision, but only a series of decisions that (hopefully) improve on prior decisions. Then the value of information depends on the developmental process, where information may be used in different ways at different stages of development.

The variety of developmental conceptions is substantial, and some are quite simple, even simple-minded.[11] Sometimes the developmental process is simply one of maturation, with older individuals assumed to be more sophisticated in decision-making than younger ones. Sometimes the developmental process refers to moving from fantasy stages — dreaming of becoming a queen or a rock star — to a more realistic understanding of the nature of possibilities. In Super's influential model, the self-concept of an individual develops over time as a product of experience; the process of change can be described as a series of stages — exploratory stages include a fantasy period, a tentative period, and a more realistic period, followed by trial and stable phases of the establishment of career identities. Over time an individual's career maturity — or success in coping with the demands of career development — may develop as well, though (as in many developmental theories) there is nothing to guarantee than an individual becomes more mature in this specific sense. Gottfredson's theory also emphasizes the notion of self-concept, in which individuals seek jobs consistent with their self-concept; self-concept develops over time as individuals developed clearer notions of power, gender roles, the social valuation of different occupations, class issues, the development of preferences, and the like. Savickas' conception emphasizes the development of time perspective, which in turn leads to planning and planfulness. Law's career learning theory, attempting to integrate earlier theories, posits a progression from a stage of sensing career-related information and impressions, through sifting them into recognizable patters, to focusing and understanding information available about occupations, one's own capacities and preferences, external constraints, and the like (Law, 1996). This model is very much concerned with the organization and interpretation of information from many sources, and in particular tries to answer the question — part of the problem of constructing information — of why "a person decides for the first time to start paying attention to something in his or her experience". And, as I mentioned above, there could be developmental conceptions of interests and preferences (usually part of the notion of self-concept), or

of probabilistic thinking, or of the capacity to consider a wide range of alternatives including those which are unfamiliar. Almost any element that might influence a decision could be incorporated into a developmental process, stressing that many different influences over time cumulate in the capacity to make decisions.

If developmental conceptions are "correct" — if they help explain under what conditions individuals shift from more primitive decisions to greater sophistication — then it follows that decision-making is not a simple "skill" that can be taught at one point in time and then used ever after.[12] It also implies that any efforts to improve the sophistication of individuals in making any kinds of decisions, including educational and career decisions, must be continuous over time rather than episodic, and should be developmentally-appropriate — for example, different for secondary students than for college and university students on the throes of career decisions, or different for those at earlier stages of development in any dimension. In any case, the simple provision of information is clearly not adequate to helping individuals make the decisions they need to make about schooling and occupations.

4. The complications of identity formation

Most notions of education and career development refer to individuals making decisions, and certainly the expected utility model is a conception of decision-making. But in many respects the choices about schooling, work, and careers are not choices in the same sense that we think of the choices among shirts or fruit or financial services; they are much more difficult issues of identity, involving deeper issues of what a person is, what their values are, how they position themselves with respect to others and to social groups, what they think of as a worthy life — the many different elements defining who they are. For some people the identity issues involved in career choices may not be especially difficult: sons who follow their fathers into business or a particular profession or craft, and women who follow their mothers, need not reformulate their sense of identity. But in many of the most challenging cases — women contemplating non-traditional occupations, working-class youth contemplating professional careers, minority youth considering educational and career pathways that might be considered "white" and therefore distrusted by their peers, aboriginal youth thinking of working in the "white" world, older individuals trying to find a new line of work — certain occupational decisions may require a re-formation of identity, and therefore a longer, more difficult process than is implied by the notion of career decisions.

There is by now a substantial literature on identity, from several disciplines including psychology, anthropology, cultural studies, linguistics, and literature (Hull and Zachner, in progress). Virtually all this work is still conceptual or theoretical rather than empirical; the conception of what an identity means is not consistent, and the process by which identity is shaped also varies extensively (not surprisingly). But there are a few commonalities in this literature. One is that individuals have multiple identities — gender identities, class identities, racial identities, occupational identities, familial identities — and perhaps different identities in different settings, as they face different groups of people. A second is that identities are constructed out of a variety of influences, not simply conferred on an individual. (This is, of course, the issue in the passage from James Agee at the beginning of this paper — that parents and families "will not ever tell me who I am".) The materials from which identities may be constructed include experiences, of course, but also social models and norms, family influences, and historical influences (including ones that are poorly understood by the individual). While it may seem that the formation of an identity is similar to the formation of preferences or of self-concept, it is generally conceived as more fluid, more complex, more conflict-laden. A third is that the construction of identity may require recognizing different forms of social conflict, particularly because identity may mean constructing a sense of self relative to others; therefore identity may be affected by social debates about gender, class, urban/rural distinctions, race and ethnic differences, language-related identities, perhaps regional identities, values including political values (Labor/Conservative, Republican/Democrat, conspicuous consumer/Green, etc.). Finally, like all good post-modernists, current identity theorists stress the value of language, talk and

stories as the medium of making the elements of an identity conscious; thus extended discussion with a parent, counselor or teacher might be a crucial part of identity formation, but simple information would not.

If occupational and educational "choices" involve shifts in identity, then the "choice" will be infinitely more difficult, and may be strenuously resisted by parents, peers, and a community to which an individual has belonged. This is a particularly familiar story in countries with mass immigration, like the U.S., where the need of new immigrants to separate from the culture of their birth before becoming part of a new culture has been subject of many autobiographies, novels, and the like. The transition may require re-building a new community of support before such a "choice" can be made. Indeed, one can see such a process taking place in various educational institutions where support groups develop among older women going back into the labor force, or among minority-groups students who may initially feel out of place in a university, or (in the U.S.) among students transferring from community colleges to universities; one way to interpret these support groups is that they create a new community of identity for individuals who are in the process of changing their identities.

If occupational choices require the re-formulation of identity, then again information by itself is surely not sufficient. Guidance may be helpful, but it then may need to be more sustained than is usually the case, and some kind of support group — or group of others who provide a new community — may be necessary in addition. So, for example, the efforts to fund sex equity coordinators in the U.S., who provide women with information about the value of non-traditional occupations, is surely inadequate if young women need to reshape their gender identifies before trying to become scientists, or doctors, or heavy equipment operators, or computer technicians.

III. BEYOND INFORMATION: GUIDANCE AND CAREER-RELATED ACTIVITIES

In many different ways, then, information alone is inadequate to make the educational and career decisions that young people face, or that older individuals changing their directions and their jobs must confront. The obvious question is what might be sufficient for individuals to be able to use information in sophisticated ways. I note that this is necessary not only to make education and career decisions, but also to become full citizens in the Information Age, when larger and larger repositories of information must be weighed and sifted in roles ranging from employee to citizen to family member to community participant. Indeed the ability to use information is often included among the "higher-order abilities, or "skills for the 21st century", or the "key" or "core" skills articulated as part of the Education Gospel — even though this is a "skill" that is difficult to know how to teach.[13]

In weighing the kinds of activities that go beyond the provision of information, it is necessary to examine in greater detail what actually happens in career information and guidance. To do this it is necessary to examine actual practices in greater detail, and therefore I have turned to information about practices in the United States, rather than relying on information from a variety of countries where information about practices is typically limited.[14] In this section I first examine what career *guidance* (as distinct from career *information*) does and can do, since counselors may be able to help individuals interpret information. Next, since guidance practices are so limited (at least in the U.S.), I present some alternative conceptions of the counselor's role. I then examine a range of career-related *activities* that go well beyond what is usually possible in guidance activities.

Some of these respond to the problems reviewed in Section I and II, but some issues — for example, the development of time perspectives — have rarely been addressed. While there is a large portfolio of options to choose from, educational institutions and countries that want to help students and others become more sophisticated in the use of information need to give explicit attention to this dimension of educational and career development.

1. What Guidance Counselors Do

Career guidance as distinct from career information is usually carried out with the help of an individual variously labeled a counselor, an advisor, or sometimes a case manager. Counselors can operate in many different ways. They may, of course, simply provide information to their clients, particularly in the trait and factor model where they administer interest and personality inventories and then provide information about the occupations that are most compatible — without intervening in any other way. This conventional method, consistent with a *liberal* approach in which counselors help facilitate a client's choice, provides no opportunities for changing the ways individuals approach information. In a more *directive* approach, implied by the term "guidance" (at least in the American context), counselors may steer individuals toward some particular and "realistic" decisions, rather than facilitating the individual's own decision — for example, by guiding women to traditionally female occupations, or guiding low-income and minority individuals to lower-skilled occupations .[15] This practice — which generations of writers about guidance have critiqued but which is still evidently practiced — has led to fears about counselors tracking or steering or "cooling out" individuals, and in turn to attacks on counselors for limiting ambition. However, this certainly does not provide much help to students of clients in helping them think about decision-making because it substitutes the counselor's decisions for those of the student or client.

Counselors can also work with students and clients to formulate realistic rather than fantastical plans, in part by presenting information about the requirements for occupations and pointing out the disjunctions between educational plans and occupational aspirations — the problem that arises, for example, when a student without any science or math declares the intention of becoming a doctor. However, those trying to bring reality to students may also be accused of discouraging or "steering" them, rather than helping them understand the roles of certain constraints — here, the education necessary for certain occupations, or perhaps the special abilities (artistic or musical talent, for example) necessary in others. Counselors may often operate to broaden the aspirations of students, by informing them about a wider array of options than they might otherwise consider and pressing them to consider them seriously; this is an antidote to the problem in Section I.3, when individuals may examine too few alternatives, and a potential antidote to the problem in Section II.2, when parents constrain their children's choices. They may structure programs of activities related to career development that extend over time, potentially addressing the need for developmental conceptions of career decision-making and guidance. They may identify work placements and other learning opportunities, which — as many have argued, and as I review in the next section — may be one of the best ways for individuals to develop their interests. They may clarify the need for planning, which is a way of shifting demand from latent to explicit demand (Section I.5 above); indeed, the very format of the common trait and factor approach assumes that planning is necessary, informed by preferences, abilities, and occupational alternatives.

This brief description hardly exhausts the kinds of activities counselors can undertake, to be sure.[16] The point is that they can act simply to provide information, or in other ways that do little to further the ability of individuals to use information in sophisticated ways; or they can address at least some of the problems I identified in Sections I and II. But the more important question is probably what counselors normally or frequently do, not the broader possibilities one can imagine, since constraints of funding, or their own training, or institutional cultures may limit their activities. While there is very little general evidence about what counselors actually do,[17] I will use practices in the U.S. to illustrate the problems that can arise if we confine ourselves to describing what counselors can do rather than what they actually do. A similar analysis for another country would differ, of course,

depending on the training of counselors, the institutional and fiscal constraints, and the history of CI&CG; but for any country an empirical rather than conceptual approach is necessary.

Currently there is relatively little career education in the U.S., as a result of a renewed stress on academic subjects, on high-stakes accountability measures stressing performance on conventional multiple-choice language and math tests, and the decline of traditional vocational education. Almost all middle schools and high schools have counselors, to be sure, but the student:counselor ratios are typically between 500:1 and 700:1, and sometimes approach 1000:1. Furthermore, most secondary school counselors are consumed by administrative paperwork, by activities related to special education, and by crisis counseling related to especially disruptive students or to personal crises in the lives of individual students. Career counseling has given way to personal counseling and to academic counseling — making sure that students have sufficient credits to graduate, for example, and that they have taken the right kinds of courses — including some college counseling, or providing information about the characteristics of different colleges and universities. But there is simply no time or resources for serious career counseling, let alone more complex activities that might help students become more sophisticated in the use of information.

When secondary school counselors and teachers do emerged from their mounds of paperwork, their activities reflect the constraints that have developed around counseling. They tend to combine academic counseling — focused on progress through the high school and on to college — with cognitive-behavioral strategies to improve students' self concepts, like cognitive distortions, defeatist attitudes, and perceptions of a lack of success as due to low ability (Trusty, 1992). With the emphasis on academic counseling combined with personal counseling, there is little time for career-oriented counseling. Even in the early 1970s, guidance counselors rarely provided career guidance (Ginsberg, 1971); in a national survey of guidance counselors in the mid-1980s, few reported that career counseling was a high priority, and few spent much time on career planning (Krei and Rosenbaum, 1998). In Rosenbaum's study of counselors in mid-western high school, most counselors reported that they did very little of that; in an argument repeated throughout the schooling system, one declared that "I am an educator; it is not my job to find jobs for students". When counselors did do something about career prospects, they were wary about providing any direction for fear of discouraging college plans, or of being seen as tracking or steering students. At most, counselors have come to be dispensers of information; as one of the counselors commented, "I don't give advice, I give information." The dominant strategies of these counselors was to preach College for All, advising virtually all students to prepare for college and providing them the information necessary to meet college requirements. This strategy is essentially an abdication of any role for counseling. A blanket recommendation of College for All does not help students think about the range of occupational and educational options available, or about their interests or strengths or weaknesses, or about avenues to explore in developing these preferences; it simply postpones any real decisions about the future, and substitutes uniform advice for a more careful exploration of alternatives appropriate for individuals, as Parsons (1909) and his successors had urged.

To be sure, a small number of counselors and instructors did depart from the strategy of recommending College for All. Some stressed personal growth, reverting to the model of psychological counseling. A few felt compelled to provide some advice about the future when confronted with unrealistic college plans, but most of this group took a "soft and gentle" approach, avoiding difficult issues and advising such students to "believe in themselves". Even those that took a harder line when confronted with goals that did not match a student's academic record and plans provided little real information, once again focusing on aspects of personal development— for example, trying harder, or understanding that rejection is a part of life — rather than informing students about the options in the labor market, the links to schooling, and the process of weighing alternatives. In this way what might be career counseling was converted into an aspect of personal counseling, with very little chance for students to consider the nature of their futures. To be sure, counselors voiced a number of private doubts about these strategies, recognizing that the advice of College for All might simply overlook the student's true options, or that they might be able to do more to prepare youth for the future if they had a broader range of alternatives beyond the advice of

College for All. However, they felt that they had little power against parents, against the dominant culture of college-going, and against the suspicion of counselors as gatekeepers.

Krei and Rosenbaum (1998) examined the role of vocational teachers as well as counselors. A relatively small group continued to preach College for All. Two other groups, the "diplomats" and the "straightforward" teachers, recognized that student ambitions were often unrealistic given their school records and plans: the "diplomats" tried to present these issues "as subtly as possible", while the "straightforward" group were more candid about these issues, and also provided more realistic information and more clear advice about directions. And a small group took a hands-off approach, disavowing any responsibility to helping students plan for their future; often, they subscribed to the "school of hard knocks", or trial and error, as a way of making career decisions. While there may be some danger that the "straightforward" group might unintentionally steer students away from college, they professed not to do so; indeed, they were less likely than other teachers to call their students unrealistic, and they incorporated much more career information and planning into their courses as ways of providing them with multiple avenues. Overall, however, while occupational teachers displayed a greater variety of counseling strategies than did counselors themselves, career-related guidance is rarely available in American high schools, and in most cases it abdicates any active role for counselors.

The situation seems only a little better in community colleges. While some students know precisely what they want, many more are uncertain — including the many "experimenters" who enroll to figure out which occupations might fit their interests and abilities.[18] The majority of colleges provide standard counseling services where students sign up for individual guidance, sparking student reactions from hostility through indifference to praise.[19] Some counselors have made a distinction between "passive counseling" — simply responding to student requests for information — and "active counseling" - "answering the questions students would ask if they knew what to ask", as one described it. But most counseling seems to take the "passive" approach.[20]

A few colleges have mechanisms to follow students and provide help when they appear to be falling behind: a more interventionist approach that shifts the responsibility for maintaining progress toward the institution.[21] Others have devised semester-long or year-long "courses" to help students reflect upon their interests and the employment options available; a very few provide work experience and co-operative education so that students can directly experience a variety of occupations (Villeneuve and Grubb, 1996; Grubb and Badway, 1998). But in many institutions students appear to be on their own: academic counseling trumps career counseling, and the "information dump" of standard counseling provides no active way for students to learn about decision-making. The result, once again, is to leave students swirling around in the curriculum without any sense of their goals or how to attain them.[22]

Only in elite colleges does the situation become markedly better.[23] For the middle-class youth who tend to enroll in these institutions, there is a surfeit of information — manuals about different colleges, college rankings, private counselors to supplement the meager resources in high schools, the direct experience of parents — to shape their decisions. Many colleges have adopted the conception of *student development*, viewing students as individuals facing a variety of developmental tasks and encompassing activities like dorm life, seminars, counseling, intramural sports, other extracurricular activities, and smaller groupings within colleges like houses or honors colleges (Ratcliff, 1995; Knock, 1985). But outside elite colleges and universities, this developmental approach to life's many options rarely occurs.

The most obvious characteristic of career-oriented guidance in the U.S. is how unequal it is. The most sophisticated students in elite colleges receive the best-developed services, while others — non-college-bound students in high schools, "experimenters" in community colleges, those eligible for job training — receive almost nothing. A second notable feature is that the location of guidance within educational institutions has caused school-related agendas to take over, displacing the early purpose of informing students about occupational options by academic counseling, and often by

personal counseling and administrative paperwork. These conditions undermine the capacity to link schooling and work through guidance . Students-as-consumers are often badly misinformed — for example, many high school students are unaware of the requirements for college, or graduate with "misaligned ambitions" (often described by counselors as "unrealistic"), or who turn up in community colleges by accident or as ill-informed "experimenters" — or they have been informed in such inert ways that they are unable to act on the information they receive. The result is that all too many students have "misaligned ambitions", as Schneider and Stevenson (1999) have described them — with high educational and occupational goals but without the educational plans necessary to realize these goals.

So, when we look at what counselors in one particular country actually do, there is relatively little guidance, relatively little career-related help, and nothing to speak of — except perhaps in elite universities, in the practice of student development — that would address the problems outlined in Section I and II. The existence of a reasonably large set of efforts labeled guidance dissolves in practice into paperwork and other relatively meaningless activities that cannot possible help students negotiate the Information Age.

There are, to be sure, some different practices here and there that provide very different directions for career-related guidance and for the roles of counselors:

a. The Puente Program was created to help Latino students complete high school and become eligible for public colleges and universities in California.[24] A half-time counselor is assigned to 120 students, for a 240:1 ratio. *Puentistas* are together for special English classes in ninth and tenth grade, emphasizing literature through which they can explore their Hispanic origins and culture; the courses also stress the writing process. Ideally, counselor-mentor liaisons (CMLs) recruit mentors from the local Latino community, to provide yet another kind of support and role model to students; in practice this element has not worked well.

The counselors operate in many different ways: they consult with the English teachers to diagnose academic problems, and devise ways to solve them; they counsel students in groups about many different topics from college entrance requirements to study habits, preparation for the SAT, financial aid, and the development of four-year plans in which they develop year-by-year plans, a practice that might encourage planfulness (see Section I.4 above). They arrange trips to local colleges to familiarize students with college both as a place and as an idea, and they often take parents on these trips. They organize parent groups, partly to educate parents about college and its requirements, partly to get parents to "let go" of their children (especially their daughters) — a response to the problem identified in Section II.2, of parents constraining the choices of their children. They also organize the Puente program as a whole, coordinating the efforts of teachers and CMLs. It is clear from talking with students that their counselors are indeed well-loved: the cohort of students is usually described by them as *familia*. In addition, the counseling role is distributed in Puente: rather than falling entirely on the shoulders of a counselor, English teachers, mentors, and the CMLs also play counseling roles.

Puente generally succeeds, then, in creating a school-within-a-school, in enhancing the quality of instruction, in strengthening parent participation and support. It is instructive as a model of the multiple roles counselors could play if their loads were reduced, and if they were considered central figures in coordinating a school-within-a-school rather than merely a marginal adjuncts to the core instructional program. And while counselors certainly do focus on providing students with the information necessary to get though high school and into college, many of their activities — creating four-year plans, focusing students on the future goal of college-going, creating parent groups, generating a variety of trips — and their close contact with students over four years have the potential for remedying some of the issues outlined in Sections I and II that prevent students from using information in sophisticated ways.

b. "Education Through Occupations". A number of high school reforms have integrated broadly occupational content and applications into their programs, in forms ranging from small career

academies (which are schools-within-schools), through high schools in which all students choose a major or career cluster or career academy, to high schools with a broadly occupational theme (e.g., agriculture high schools, or high schools focused on health careers, or High Tech High in San Diego).[25] Once high schools have introduced these practices, they have been forced to confront the need to educate students about their options, and they have then strengthened their career and academic counseling — where the two are inextricably combined since the decision about enrolling in an academy or major is also a preliminary decision about a career direction.[26] Sometimes this is done in conventional ways, by having representatives of career academies or majors talk to ninth graders about the options. In many cases, however, a much more elaborate program of experience, experimentation and choice has been devised. In one high school in the Pacific Northwest, for example, students may choose among six different majors or clusters. In the ninth grade and the first half of tenth grade they take nine-week mini-courses (sometimes called "exploratories") in each of the six clusters; they learn the technologies and methods associated with a broad range of occupations, learn more about the careers available and the kinds of preparation necessary, and generally experience what life might be like to be in that occupation — at least to the extent that a high school can simulate such experiences. Next each student chooses two of the six clusters for a second nine-week period of experience, at more advanced levels. Then they choose one of those two clusters, and this is the basis of their program in eleventh and twelfth grades. Thus all students experience every cluster the school offers (so that, for example, young women cannot escape trying out occupations conventionally thought to be male); they learn about occupational alternatives both through experience and through conventional reading and teaching; and they make two choices, with substantial but not irreversible consequences.

In addition, in these programs — also described as school-to-work programs, or "college and careers", or the "new" vocational education — the guidance and counseling function is broadly distributed. It falls not only on conventional counselors, but also on occupational instructors in the academies and majors; on academic instructors, who may tailor their teaching, readings, paper assignments, and projects to be consistent with the theme of an academy or cluster; on the experiences within workshops and workplaces; on contacts with employers outside the schools, ranging from the conventional class talks to summer internships to full-blown co-operative education programs; and, for those students with work placements, on contacts with co-workers. As Ryken (2001) has stressed in her evaluation of a biotechnology academy with an active internship program, students learn in different and complementary ways from different participants, expanding the possibilities for both learning content — in this case, the science and procedures associated with biotech production — and developing perspectives about future options.

c. The Family Advocacy System is part of a reform called First Things First. In this system all teachers, administrators, and specialized and qualified support staff in the high school are assigned a group of students (typically 12-17) and their adult caregivers, which they stay with as long as the student is at the school. Family advocates meet with each student for at least 5 minutes each week, and one hour a week is set aside for them to meet with students individually and in groups. They make monthly contact with students' caregivers either by phone, mail, email or face to face, to "touch base" and discuss students' accomplishments and challenges. And they meet with each student and his or her caregiver twice a year for at least 30 minutes to review student progress and develop action plans, including possible referrals and follow-ups to additional support services. Family advocates are given initial training by First Things First staff and experienced participants from other school districts. They are also provided support services (e.g., translation services, transportation, security), and ongoing training by teams of district employees (e.g., counselors, social workers, parent liaisons, school improvement facilitators). The family advocates in effect replace counselors, and (as in the Puente model) provide a much greater variety of activities.

d. The National School Counselor Training Initiative is an attempt to move counselors away from mental health practices and one-on-one (or small group) counseling, and to have them participate in more central ways in academic reforms designed to enhance achievement.[27] The essential insight is that counselors should become the individuals responsible for school performance:

if performance among some group of students were substandard, counselors would be responsible for collecting information, diagnosing the problems, and then developing with teachers the solutions to these problems. They would also operate as advocates for poor and minority students and others who have historically fared poorly in schools; they would be explicitly responsible for devising strategies to close the various achievement and persistence gaps in high schools. Counselors would in effect operate as in-house reform monitors and coaches, and would largely cease traditional one-on-one counseling; they would operate through teachers and administrators rather than being independent as they now are. To be sure, this conception of a counselor's role requires a completely different training program, moving away from the conventional mental health approach; it also requires the understanding and support of principals and other administrators. While this vision of a counselor's role has been articulated, the efforts to implement this vision are only now starting, and no school in the country has yet put this approach into place.

e. Learning communities — groups of courses that students take simultaneously — have been created in several community colleges that combine counselors with other instructors, again embedding guidance within the core of the curriculum. In some cases, counselors provide a course exploring the nature of labor markets and occupational alternatives, while other instructors provide the usual introductory course ("Introduction to Health Professions", for example, or "Introduction to Business"); this enables counselors to help students explore career alternatives in the context of specific career area, and avoids the common problems of counselors who are unfamiliar with occupational areas. For those students unsure of what occupational areas they want to follow, counselors sometimes join with basic skills instructors, creating a series of career exploration activities that also develop their reading, writing, and basic math competencies. Some of these learning communities are focused on specific groups of students: Puente for Latino students, others for welfare mothers trying to return to the labor force, and PACE programs for older adults returning to college (including mothers and homemakers).

In all these reforms, counseling and guidance become radically redefined. Indeed, in the Puente program and some forms of "education through occupations", they become widely distributed and embedded in the structure of the academic program itself. In addition, these guidance and counseling activities are more likely to adhere to basic precepts about engaging and motivating students in schools: they are associated with small-scale learning communities; they provide students more chances for active and self-directed learning through projects and experiences; they are more likely to offer carefully structured programs, rather than episodic counseling encounters; they can offer multiple paths for success, at least when they avoid College for All and explore a broader range of future options; and they are more likely to encourage students to explore educational and career pathways, and to do so in experiential ways. For my purposes in this paper, they provide a set of activities — planning activities, forms of experiential learning, interaction with different kinds of adults, engagement with the fears of parents — that might address the need to develop interests and competencies, to become more planful, to get to know directly what the world of work looks like, and to consider a variety of educational and occupational options rather than merely following the accepted route of College for All. There is still much more development necessary before they become well-accepted elements within secondary schools in the U.S., but they at least suggest some clear alternatives to conventional guidance and counseling.

2. Career-Related Activities Beyond Guidance

Beyond the roles that counselors (or careers officials, or caseworkers) can play, a variety of other career-related activities also go beyond the simple provision of information, and can address the requirements for becoming sophisticated decision-makers in the Information Age. What distinguishes these activities is that they are generally experiential and therefore involve modes of learning different from school-based learning; they move outside school settings into various offices and workplaces in the broader world; and they involve a variety of adults aside from those designated as counselors. In many ways they return us to the advice given by Frank Parsons in 1909: when the trait and factor

approach became impossible because a young person had no apparent interests or abilities, the liberal approach was to suggest readings and visits to various workplaces "so as to get an experience sufficient to bring out his aptitudes and abilities, and to form an intelligent judgement as to what he shall try to do in the world" (Parsons, 1915, pp. 11-12). There are many ways of doing this; indeed, the approach of middle-class parents in the U.S. has often been to provide their children with as many activities as possible — music lessons, sports teams, ballet classes, Boy Scouts and Girl Scouts, 4-H clubs in agricultural areas, church choirs and glee clubs, foreign travel, family camping, summer camps, and every kind of school-based extra-curricular activity — to see where their latent interests might be. Such a broad array of alternatives are not often provided in public programs, but certain activities have been persistently mentioned as potential sources of development: work experience and work-based learning; service learning; contacts with a broader array of adults; and finally a set of emerging youth development activities.

a. Work experience and work-based learning. Work-based learning is a central component of occupational preparation in countries like Germany and Austria with a dual system, but it is not used for career guidance purposes in those countries because individuals have already committed themselves to an occupational area. However, in part because of the relative success of Germany in creating a smooth school-to-work transition (Buechteman, Schupp, and Soloff, 1993), a number of other countries have tried to establish forms of work-based learning: Great Britain with its program of one or two weeks of experience, often at the end of year 9; the U.S. with its recurring interest in work-based placements, most recently during the 1970s and again in the 1990s with the School-to-work Opportunities Act, and with the practice (unfortunately rare) of co-operative education at the post-compulsory level; and the activities of employer associations in Sweden, Germany, and Austria, to provide employer visits, internships and work experience programs, job shadowing, and experiences within schools including work simulation.

Such work-based activities can, if properly structured, accomplish several goals simultaneously. They provide different kind of information — experience-based, incorporating learning about the multiple competencies necessary in different types of work, introducing students to the social norms of workplaces, and placing students in contact with a variety of co-workers and supervisors — that is very different from the information available in conventional CI&CG. As Ryken (2001) has stressed in her analysis of a work experience program, they enable students to learn different things from different people — for example, learning theory from academic instructors and applications from work supervisors — in ways that are complementary. And work placements seem to provide students with much richer and denser understanding of occupations than school-based education can.

In many cases, to be sure, work placements are too brief, or take place in workplaces that are educational impoverished, or in jobs that are so narrow and routinized that virtually no learning about a range of occupations can take place; and if the school-based component of education does not incorporate the activities and learning from work-based placement in some way, students may simply experience school and work as two independent activities. It has therefore become common to warn that work experience with attention to its quality may be useless (or even counter-productive). But in some situations work placements have been used to systematically develop the career development of students. In the high-quality co-op programs in the Cincinnati area, for example, employers rotate their co-op students around a variety of positions, both so that they can develop a broader view of what work requires — a requirement for the flexible work of the 21st century workplace — and so that they can determine which kinds of positions they might prefer (Villeneuve and Grubb, 1996). In a particularly interesting example of integrating work-based and school-based activities, LaGuardia Community College has required students to take three co-op placements;[28] for academic students these are treated as forms of career exploration, and a trio of related seminars held on the college campus during the work placements encourages students to examine what they have learned about work and occupational alternatives (Grubb and Badway, 1998). So work placements can be consciously structured to maximize learning about occupational alternatives, the competencies required at work, and the transition from school to work.

In terms of the requirements for the sophisticated use of information, work-based learning provides some distinct advantages over conventional guidance. One is that it can provide the variety of experiences that might contribute to the formation of career interests and preferences. A second is that it provides, through direct experience, some solution to the difficulty of seriously considering counter-factual alternatives that I noted in Section I.2. Still another is the process of engaging in production enables individuals to see how considerations of time are used in production: the consequences of being late, or of poor planning, or of procrastination are much more serious in workplaces than they are in conventional school settings. While work placements have not been examined for their ability to make students more sophisticated users of information, this is one of its potential benefits.

b. Service learning has developed within the past decade as another option that engages students outside schools, in placements within various community-serving organizations.[29] It is not a complete alternative to conventional guidance and counseling, but — like work-based learning options — provides students with different kinds of experiences and information that can lead them to understand their school and future options in different terms. There are currently many different models and conceptions, though the highest-quality programs include organized connecting activities, often referred to as "reflection activities", in which students deepen their understanding of community-based social issues within their schools (Eyler and Giles, 1999). Advocates for service learning focus on four kinds of student engagement: civic engagement, social engagement with the communities they serve, personal engagement with individuals they serve, and academic engagement, which teachers mention as one of their principal reasons for using service learning (Ammon et al., 2002). So far, service learning has been evaluated largely in terms of its ability to motivate students in school and to increase school attendance and dropping out, though in Melchior's (1997) national study a large portion of service-learning students (87%) reported having learned a new skill that they believed would be useful in the future. Other authors have concluded that service learning makes the curriculum more relevant to future activities and therefore more interesting to students, and that this has great potential to motivate students to come to school and more genuinely engage in classroom activities (Follman and Muldoon, 1997; Weiler et al., 1997).

In many ways, service learning activities are quite comparable to work-based learning, except that they are likely to take place in community-based organizations and social service organizations rather than in conventional private employment. Otherwise, however, service learning is similar in its potential for learning about workplaces and occupational alternatives, about the variety of competencies required in work, and about the need for careful planning in considering the educational prerequisites for employment.

c. Contacts with a variety of adults. A number of programs work by providing young people contacts with a richer variety of adults than is the case in educational institutions. Work experience and service learning programs do this by putting students in contact with work supervisors and co-workers; the Puente program mentioned above does it by recruiting community-based liaisons, who are generally Latino adults in professional and managerial jobs who can provide guidance about the paths through education to careers. In the U.S., mentoring programs have developed — like Big Brother/Big Sister — that try to match adults with young people. There is now substantial evidence that well-designed mentoring programs can help students in several ways (Tierney, Grossman, and Resch, 2000; Morrow and Styles, 1995; Mecartney, Styles, and Morrow, 1994); many high-risk students have a "significant other" at their school (reported to be a counselor in more than 50% of cases) who supports and understands them (Wirth-Bond, Coyn, and Adams, 1991.) But while it is clear that such mentors can provide other sources of guidance in making educational and occupational plans, it has often been difficult to recruit such individuals, and in most schools counselors are too overburdened to serve in these roles.

In other countries, it has been more common for employers to provide a series of visitors to schools and employer visits, particularly in countries with active Chambers of Commerce like Sweden, Germany, and Austria. Similarly, in countries where labor unions are strong social partners,

they too can provide information about work; unions in Finland provide some information about wages and working conditions; unions in Iceland have apparently added to the information available to school counselors; Sweden used to require three work-experience placements for all secondary students, in different sectors of the economy; and in Great Britain Trade Union Learning Representatives provide low-skilled workers with advice and information at the worksite. These can all be interpreted as ways of providing learners with access to different adults, with different kinds of information and perspectives about the workplace. How powerful these experiences are in shaping attitudes toward school and work is unclear, but at least they go beyond the conventional range of CI&CG.

d. Youth development programs. A recent development in the U.S. has been a series of youth-serving programs calling themselves "youth development" (Eccles and Grootman, 2002; Jaffe, undated). To some extent these are community-based groups that have always tried to reduce school dropouts and to improve the lives of those who have dropped out of school, but with a philosophical twist: rather than seeing their clients as "deficient" and in need of correction, they try to uncover the strengths and interests of marginalized young people and to build on these strengths. The kinds of activities that youth development programs sponsor is vast, though most seem to provide activities and experiences that offer positive alternatives to just hanging out with peers, including sports and recreation, dance, computer work, school-based enterprises, and school-related tutoring (including practice on high-stakes exams such as exit exams). Some of these opportunities are based in after-school programs, which recognize that students growing up in poverty have poor access to youth-serving organizations and school-sponsored extracurricular activities; their supporters hope they will "provide a safety net for children who are at high risk for depression, substance abuse, early sexual activity, teenage pregnancy, and violence," and can thereby promote long-term academic success.[30]

The novel element in after-school programs is that rather than (or in addition to) providing access to problem-oriented support services, they can offer an array of activities that are not provided within most schools and that may offer their own educational and developmental value. They are supported by the research finding that participation in structured activities (including religious activities) and time spent interacting with adults during 10th grade had positive and significant effects on educational outcomes by grade 12, whereas time spent hanging out with peers was associated negatively with educational outcomes (Jordan and Nettles,19xx). Like service learning and mentoring programs, youth development activities have not usually been analyzed for their effects on career development. But in the broadest sense they attempt to enable marginalized youth to "get a life", which inevitably involves finding some productive line of work and the educational prerequisites to get into it; and they do so by using a variety of activities and individuals that are quite different from what schools usually provide in CI&CG.

In summary, there are many different kinds of activities that go well beyond the provision of information. Most of them provide different experiences as ways to develop interests and preferences, to see how the wide world beyond the school walls works, to see what variety of opportunities there is, to develop the many competencies (especially non-cognitive competencies) not usually included in formal schooling, to engage in activities that might require planning, to provide alternatives to familial and community influences in case these are narrow and limiting. They are not specifically targeted on the capacity to make sophisticated use of information, and indeed several dimensions of this capacity — especially the development of planfulness and of probabilistic thinking — are not specifically addressed in these activities. The relationship between these activities and the process of developing a sense of self, including the requisite educational plans and career decisions, is indirect at best, and many of them — work-based learning, for example, and certainly the ill-defined activities of youth development — can be implemented without having any effect on decision-making capacities or career identity. But they do provide a portfolio of opportunities for moving beyond the provision of information and the availability of guidance, in ways that can develop the capacities of young people in other ways.

IV. CONCLUSIONS: TOWARD CONSTRUCTIVIST APPROACHES TO CAREER COUNSELING

I began this paper with the concern that individuals in liberal societies need to construct their conceptions of who they are — that no one who cares about them will simply tell who they are to be. In a world in which occupations are changing constantly, as the Education Gospel assumes, and where well-known career paths have (according to some) given way to more fluid conceptions of occupational mobility, individuals may also have to construct for themselves the employment trajectories they follow. [31] Their families and communities may influence their decisions, positively and negatively, and — in a world where educational institutions have taken on critical occupational roles — formalized guidance and counseling has its own role to play. But families are less and less controlling, and school-based and other guidance services have backed away from directive roles in guidance. Individuals in most developed countries must make decisions for themselves, and the questions remains whether they grow up ready for liberalism and the variety of choices they confront — particularly as markets and market-like mechanisms come to have greater power in these countries.

One simple way to understand the limitations of career information, and of much of the guidance that is provided — at least when I use the U.S. as an example — is that a *constructivist* conception of career information and guidance is necessary. This is one that facilitates individuals constructing their own identities, their careers, the role of education and work relative to the other possible interests in life. Constructivist approaches to pedagogy usually stress more experiential and less didactic forms of teaching, the development by the student of deeper understandings or constructs or schema of how the world works, a greater attention to these kinds of deep understandings than to the facts and routine procedures involved in any subject or disciplines, and a belief that the instructor — while playing a crucial role in supporting (or "scaffolding") the exploration and early learning of students — is not in the end the source of the most crucial knowledge, and must step aside (or "fade") to allow students to develop independently.

The problem is not only that constructivist approaches to teaching are comparatively rare, but also that the history and limitations on CI&CG have led to a variety of non-constructivist or behaviorist practices. Certainly directive counseling is antithetical to constructivist practice, but many non-directive approaches are as well: the hands-off approach of many counselors and teachers who fear being seen as directive, the empty approach of College for All, the harried practices that take place when counselors are assigned 500 to 700 to 1,000 students. And the simple provision of information, which now seems to be expanding in many countries, is analogous to the provision of facts and figures in conventional teaching, all of which assume that students have the constructs or schema to organize these facts, the understanding why certain types of learning might be important, and the motivation to do so. Non-constructivist or behaviorist approaches to teaching usually lead to shallow understanding of subject matter. So too, non-constructivist approaches to CI&CG are likely to end up with shallow understanding of students' interests, the many other requirements of rational decision-making, the nature of modern labor markets and educational prerequisites, and the alternatives available.

The problem is that, in education and training as well as in career guidance, it has been difficult to develop policies that help shift instruction from behaviorist to constructivist practice. There are many ways of doing so, to be sure: teacher training programs with a particular philosophy; in-service education or staff development that support the initial efforts of teachers; curriculum materials that suggest more active or exploratory exercises for students to undertake, rather than presenting page after page of facts and procedures; project-based learning methods that help teachers and schools organize longer and more experiential approaches to learning; pilot programs and demonstration projects and small-scale reform efforts to introduce educators gradually to constructivist approaches; different forms of assessment, moving away from standardized multiple-choice tests; and approaches that try to make the pedagogical practices of principals, teachers, teacher

training, curriculum development, and assessment consistent with one another, so that practices in one segment of education are undermined by the practices in another. It has been difficult to accomplish such consistency, but at least it is clear what policies are necessary to shift away from behaviorist teaching.

So too many of the practices outlined in Section III can be interpreted as ways to shift CI&CG away from practices that are essentially behaviorist to more constructivist approaches. Some of these — the Puente program, for example, or the National School Counselor Training Initiative — are ways to prepare counselors in new ways, and to redefine their roles so that they work with students and teachers in very different ways. Others — like the "exploratories" of high schools following the model of education through occupations, or work-based learning or service learning — provide new experiences for students, ideally with the guidance (the scaffolding) of teachers and counselors. Some — the creation of learning communities in community colleges, or of parent groups in Puente where immigrant parents can inform one another or the seminars associated with LaGuardia's co-op education program — are ways of moving from the counselor-student dyad (or perhaps the counselor-parent dyad) to counseling settings where students as a group (or parents as a group) can learn from one another, in a form analogous to cooperative learning. And the methods of trying to embed counseling in the curriculum and to distribute the counseling function among a number of individuals including teachers — learning communities, "education through occupations", the Puente approach — are ways of countering the behaviorist tendency to fragment learning opportunities into separate courses, separate subjects, separate activities with independent instructors. So there is no lack of constructivist ideas and practices in the realm of CI&CG, but — as in education more generally — they have not become common.

As countries and educational institutions take CI&CG more seriously, whether in response to the tenets of the Education Gospel or out of concern with marginalized youth and social exclusion, it would be appropriate to consider the entire portfolio of information, guidance, and career-related activities that they support. The trends toward providing more and more information, through the Web, one-stop centers, and other information centers, is certainly a valuable component of an overall policy to prepare individuals to make decisions for themselves. But it is an incomplete policy, and it may leave behind precisely those individuals who most need to become more sophisticated decision-makers, particularly in a world of ever-expanding options, turbulent labor markets, and more and more market-like mechanisms in education and training, with fewer people able to tell individuals who they are.

FOOTNOTES

[1] In the U.S. setting, see Boesel and Fredland (1999) and Rosenbaum (2001) on College for All. Many European and other developed countries have expanded their post-compulsory education in the past few decades, and seem to moving toward an American-style version of education with much greater emphasis on university education.

[2] The other common element of lifelong learning is the effort to change educational institutions so that they are more accommodating of adults. Part of this effort might be to provide more CI&CG to adults trying to change careers, for example in community colleges and similar institutions.

[3] For example, Sweden has been moving toward self-service in guidance over the Internet; Ireland has developed Careers World on a website and CD-ROM, as well as Qualifax, showing all tertiary courses in the country; Germany has a great deal of self-exploration with the BIZ computer program, with many models available on the Internet; Australia has developed the National Career Information System on the web; Finland is putting all information from ministries of education on the web; and the One-stop Centers in the U.S. provide a great deal of Web-based and other electronic information to individuals. Since so much information is now available on the Web, a few countries have tried to remedy inequalities in access to the Web by establishing centers where individuals can gain access: the U.K. has established U.K. Online Centers, and Canada has created a network of Community Access Centers, for example.

[4] See, for example, Table 10.a in Herr and Cramer (1992), in which three of the top five services provided are occupational information, educational information, and individual assessment information.

[5] Of course, no one believes that individuals do make decisions in rational ways, and there are many well-developed conceptions of non-rational decision-making in economics and psychology. In a subsequent version of this paper I plan to review some of the major points from conceptions of non-rational decision-making; such conceptions may help us understand which guidance and career-related activities might improve decisions.

[6] Utility functions must be quasi-convex, transitive, exogenous, not subject to satiation, and non-lexicographical. Consumption theory has become quite mathematical, and different mathematical postulates lead to different types of consumption patterns. No doubt further analysis of this branch of mathematical economics would yield some insights about CI&CG; for example, the assumption of exogenous preferences rules out what is obvious to everyone, that preferences over careers are heavily influences by parents and by social status rankings.

[7] For a review of career development theories, see Herr and Cramer (1992), especially Ch. 4. One example is Gottfredson's (1981) theory in which individuals develop a self-concept that becomes increasingly differentiated and complex over time, and then seek jobs that are compatible with their self-concepts.

[8] Present value calculations are methods of determining the equivalence of future values in current terms, so that (for example) future benefits can be compared with current costs. The present value of a benefit B t years in the future is $B/(1+r)^t$, where r is the subjective rate of time preference. As r increases and t increases, the present value of B decreases.

[9] In the responses to the national questionnaire for the OECD Review of Career Guidance Policies, see especially the responses to section 11, on quality of information.

[10] From the perspective of expected utility theory, parents may simply be one of the influences forming preferences and utility functions, but there is no way in utility theory to challenge the process by which preferences are formed. The NICEC Briefing (1996) and Killeen (1996) note the existence of psychoanalytic theories in which deep psychological processes, unlike to be affected by CI&CG, may influence decisions.

[11] For reviews of developmental theories, see Herr and Cramer (1994), pp. 207 – 227.

[12] A good example of treating decision-making as a simple skill is the NOICC Career Information Development Guidelines in the U.S., which include "skills to make decisions" among its long list of career development competencies but without any guidance about how a program might help develop such "skills". See http://icdl.uncg.edu/ft/120899-04.html.

[13] An interesting exercise, again beyond the scope of this paper, would be to examine those efforts so far to incorporate "information skills" into the curriculum.

[14] For example, in the OECD Review of Career Guidance Policies, there is very little information about what counselors actually do when they provide guidance as distinct from information, and inconsistent information about activities beyond guidance.

[15] See, for example, the four approaches to guidance in Watts (1996), including the liberal approach, the conservative approach (which I label directive), an approach promoting individual change (the effort to broaden the aspirations of students) and one promoting social change, for example by teaching students about group identities and group policies, and perhaps helping them organize. This last approach is rarely found among counselors, though it is certainly the goal of critical or Freirian approaches to pedagogy, themselves quite rare in public education.

[16] See for example the long list of potential tasks of career workers presented by Law (1996b), and the 11 guidance activities in Bartlett, Rees, and Watts (2000), Ch. 2, "What is Guidance.".

[17] The Country Reports and the Country Notes of the OECD Review of Career Guidance Policies have almost no information about what counselors in different countries do, except to report on the frequency of careers education, and the sections on research generally report a lack of empirical research. Similarly, the country reports on Hiebert and Bezanson (1999) provide almost no information about what counselors do; and while Bartlett, Rees, and Watts provide an overview of what counselors may do, the comparisons from 6 countries provide little information about activities in practice. I note that policy-oriented examinations of information and guidance are likely to ignore the specific activities or "pedagogy" of the guidance encounter, just as policy-oriented analyses of education usually ignore the pedagogy of the classroom.

[18] On experimenters, see Manski (1989); Grubb (1996), Ch. 2; Grubb and Associates (1999), Ch. 1. The presence of so many experimenters in community college is testimony to the lack of guidance in high schools.

[19] On student reactions to counseling in community colleges, see Grubb (1996), pp. 67 - 80.

[20] These observations are based on case studies in 16 community colleges being undertaken by the Community College Research Center, which have included interviews with counselors and other student services personnel.

[21] See, for example, the program at Miami-Dade, which sends out letters to students when their progress falls behind their stated goals (Roueche and ??, 19xx).

[22] See Schneider and Stevenson (2000), especially Ch. X on community college students.

[23] Ratcliff's (1995) review of these practices indicates that they are substantially less common in non-elite, non-selective four-year colleges with limited resources. On non-elite four-year colleges, for which the literature is extremely sparse, see ???

[24] Puente was originally created for community colleges, and then the model was adapted for high schools. One the Puente program and its effects, see Gandara et al. (1998); on the role of counselors, see Grubb, Lara, and Valdez (2001). There is also one Puente-like program for African-American students.

[25] These reforms are described in Grubb, Ryken, and Legters (2002) for the National Research Council, and in Grubb (1995).

[26] I stress that these are *very* preliminary decisions. Individuals working in such integrated programs usually say that only 25% of students stay with their high school major or cluster after high school, and all such programs have mechanisms to change majors. This practice is not, therefore, the German or Swiss practice of forcing students to make irreversible career decisions in grade 9, but it does give students practice in making decisions.

[27] On this initiative, which is being supported by the Metropolitan Life Foundation and the Education Trust, see http://www.edtrust.org/main/school_counseling.asp. I have also benefited from discussions with Reese House at the Education Trust and with Linda Miller of the Louisville (KY) schools, one of the districts participating in this initiative. The initiative's motto is "College Begins in Kindergarten", leading me to suspect that the basic message of its efforts will be College for All.

[28] The number has been reduced from three to two under budget pressures — indicating once again how marginal career-related activities are in the U.S.

[29] For this section on service learning, I am indebted to Andy Furco of the National Service Learning Center at U.C. Berkeley and to Furco (2002).

[30] See "Urban Seminar on After-School Time," The Urban Seminar Series on Children's health and Safety, John F. Kennedy School of Government, Harvard University (undated), available on line at www.ksg.harvard.edu/urbanpoverty and Perry, Teague, and Frey (2002). The major federal funding for after-school programs, the Community Learning Centers, explicitly includes high schools, while state funds vary.

[31] See, for example, Watts (1996), Watts (1999), Rifkin (1995), and many of the more extreme versions of the Education Gospel.

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